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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,402	02/21/2002	Masato Nakade	TAN-296	5644

7590 04/22/2005

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ALEXANDRIA, VA 22314

EXAMINER

FUBARA, BLESSING M

ART UNIT	PAPER NUMBER
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1618

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,402

Applicant(s)

NAKADE ET AL.

Examiner

Blessing M. Fubara

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-7,9-11,14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9-11,14,16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Examiner acknowledges receipt of request for extension of time, amendment and remarks filed 12/27/04. Claims 1-3, 5-7, 9-11, 14, 16 and 17 are pending.

#### ***Specification***

The objection to the specification as it relates to the absence of oxygen atom between the silicon is withdrawn in light of the amendment.

1. The amendment filed 12/27/04 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure, is as follows: "metal oxide.organopolysiloxane hybrid particles," the specification as originally filed states ---metal oxide.organopolysiloxane hybrid powder---.

Applicant is required to cancel the new matter in the reply to this Office Action.

#### ***Claim Rejections - 35 USC § 112***

2. Claims 1-3, 5-7, 9-11, 14, 16 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original specification does not contain "metal oxide.organopolysiloxane hybrid particles," rather metal oxide.organopolysiloxane hybrid powder was disclosed and recited.

***Claim Rejections - 35 USC § 102***

3. Claims 1, 2, 5, 14 and 16 remain rejected under 35 U.S.C. 102(e) as being anticipated by Horino et al. (US 6,200,580 B1).

Applicants argue that the Horino does not teach each and every element of the claim because the particles of Horino are surface treated while the particles of the powder of the instant claims are metal oxide-organopolysiloxane hybrid wherein a silicon atom of the organopolysiloxane is covalently bonded to the metal atom through an oxygen atom. Furthermore, applicants state that the particles making up the powder of the instant claims are wholly comprised of metal oxide-organopolysiloxane hybrid in particulate form and Horino simply teaches surface coating. Also, Applicants argue that the instant particles are produced by polycondensing hydrolysis product of titanium alkoxide and organopolysiloxane derivatives with each other to form the hybrid. Applicants state that Horino first combines extender, powdered pigment, white pigment and pearl pigment into a powdered base material that is then surface treated. Applicants then cited Verdegeal Bros. V. Union oil Co of California and in re Bond to emphasize that Horino does not disclose each and every element of the claim.

4. Applicants' arguments filed 12/27/04 have been fully considered but they are not persuasive.

It is respectfully noted that applicants do not provide corresponding schematic figure of the titanium oxide-organopolysiloxane of figure 1 corresponding to the prior art in the manner presented in figure 2. Secondly, in Horino the metal is covalently bonded to the silicon through oxygen atom as discloses in column 13, lines 38-47 so that although Horino may start with the

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base metal material, but there is a formation of covalent bond through oxygen with the silicon atom just as the instant claims. The introduction of particle appears to be new matter, and will be addressed in a different section. Horino also discloses condensation process. Comprising as recited in the claims is an open language.

5. Claims 1-3, 5-7, 9, 10 and 14 remain rejected under 35 U.S.C. 102(b) as being anticipated by Shibasaki et al. (US 5,843,525).

Applicants argue there is no metal-oxygen-silicon bon in Shibasaki and as such Shibasaki does not disclose each and every element of the claims. Applicants also compared figure 3 (prior) with figure 4 (instant claims) to emphasize the absence of a metal-organopolysiloxane hybrid in the prior art.

6. Applicants' arguments filed 12/27/04 have been fully considered but they are not persuasive.

Figures 3 and 4 are not similarly compared since the schematic part of figure 3 is not provided. Shibasaki discloses that the metal can be stably bonded to the organopolysiloxane and the heating process enhances the formation of metal-organopolysiloxane.

It is also respectfully noted that the claims 1-3, 5, 14, 16 and 17 are product claims and how the product is formed is not critical and even in a product by process claims, it is the structure implied by the steps that are critical and not the manipulation of the recited steps.

***Claim Rejections - 35 USC § 103***

7. Claims 3, 10, 11 and 17 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Horino et al. (US 6,200,589).

Applicants argue that Horino does not teach each and every claimed limitation because the particles of Horino are surface treated while the instant particles are hybrid of metal and organopolysiloxane. That the instant hybridized particles allow the refractive index to be controlled without altering the powder shape or particle size and water repellency, dispersing ability and stability can be improved.

8. Applicants' arguments filed 12/27/04 have been fully considered but they are not persuasive.

The comparison of figure 5 (prior art) and figure 6 (instant claims) fails to show a schematic of the particle in which the metal is covalently bonded to the silicon by way of oxygen atom. There is no showing that the powder particles of the instant claims provide unusual results. The rejection under 35 USC 103 addresses the difference between Horino and the instant claims and the difference is the surface area of the particles. Surface area differences would not patentably distinguish the claimed invention from the prior art in the absence of a showing.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blessing M. Fubara whose telephone number is (571) 272-0594. The examiner can normally be reached on 7 a.m. to 3:30 p.m. (Monday to Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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